

## DeTERGE AT-100

**DeTERGE AT-100** is a complex, cationic ethoxylated amine recommended for use as a corrosion inhibitor and also as a thickener for acid systems.

### SPECIFICATIONS

Appearance* @ 25°C:	Amber liquid to paste
pH (10% in DI water):	10 - 12
Color (Gardner):	12 max.

\* Upon standing, product may form 2 layers. Heat until clear and mix thoroughly before each use.

**SOLUBILITY** (at 10% in water): DeTERGE AT-100 self-emulsifies in water at 10% by weight. It's dispersible in water at concentrations of <10% by weight and is soluble in most oils, glycols, alcohols, and solvents.

### TYPICAL PROPERTIES

% Activity	99% min.
Density @ 25°C	~0.93 g/ml

- Viscosity builder & gelling agent for acids
- Corrosion inhibitor for acid systems
- Antistat
- Outstanding emulsifier
- Dispersant
- Lubricant
- Detergency & wetting
- Compatible with nonionic & other cationic surfactants

### APPLICATIONS

- Viscous acid bowl cleaners
- Concrete cleaners
- Tub & tile cleaners
- Acidic vertical surface cleaning
- Emulsifier for oils
- Emulsifier for agricultural chemicals
- Oil well & down-hole drilling applications
- Acid pickling
- Emulsion cleaners
- Acid electroplating applications
- Aluminum & metal detergents

*Continued*

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**SUGGESTED FORMULATIONS WITH DeTERGE AT-100**

<b><u>Clear Bowl Gel Cleaner</u></b>	<b><u>% Weight</u></b>	<b><u>Function</u></b>
Deionized Water	72.00	Diluent
NH <sub>4</sub> Cl or NaCl	5.00	Viscosity Control
DeTERGE AT-100	3.00	Viscosity, Detergency, Corrosion Inhibitor
Phosphoric Acid (75%)	20.00	Acidity

**Procedure:** Combine first three ingredients and mix until homogenous. Slowly add acid while mixing. A clear, thickened gel will form.

**Usage Level:** Use as-is as a bowl cleaner or scale remover where cling on vertical surfaces is desired. Rinse well. Not for use on marble or galvanized metals.

<b><u>Clear Gel Rust Remover</u></b>	<b><u>% Weight</u></b>	<b><u>Function</u></b>
Deionized Water	75.00	Diluent
DeTERGE AT-100	5.00	Gelling, Wetting, Corrosion Inhibitor
Hydrochloric Acid (37.5%)	20.00	Acidity

**Procedure:** Add DeTERGE AT-100 to water with moderate agitation until a homogenous, hazy mixture forms. Slowly add acid with continuous mixing until a soft, clear gel forms.

**Usage Level:** Use as-is as a bowl cleaner or scale remover where cling on vertical surfaces is desired. Rinse well. Not for use on marble or galvanized metals.

<b><u>Flowable Gel Cleaner</u></b>	<b><u>% Weight</u></b>	<b><u>Function</u></b>
Deionized Water	78.50	Diluent
DeTERGE AT-100	6.50	Gelling, Wetting, Corrosion Inhibitor
Phosphoric Acid (75%)	10.00	Acidity
Hydrochloric Acid (37.5%)	5.00	Acidity

**Procedure:** Add DeTERGE AT-100 to water with moderate agitation until a homogenous, hazy mixture forms. Slowly add each acid with continuous mixing and blend until a clear, sprayable gel forms.

**Usage Level:** Use as-is as a bowl cleaner or scale remover where cling on vertical surfaces is desired. Rinse well. Not for use on marble or galvanized metals.

<b><u>Vertical Surface Grout Cleaner</u></b>	<b><u>% Weight</u></b>	<b><u>Function</u></b>
Deionized Water	83.00	Diluent
NH <sub>4</sub> Cl or NaCl	3.50	Viscosity Control
DeTERGE AT-100	1.50	Viscosity, Detergency, Corrosion Inhibitor
Phosphoric Acid (75%)	12.00	Acidity

**Procedure:** Combine first three ingredients and mix well; a milky solution results. Slowly add acid while mixing to produce a clear, thickened gel. Additional NH<sub>4</sub>Cl or NaCl can be added to achieve a higher viscosity product.

**Usage Level:** Use as-is as a grout cleaner or scale remover where cling on vertical surfaces is desired. Rinse well. Not for use on marble or galvanized metals.

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